

Title (en)

Exhaust gas purification system for an internal combustion engine.

Title (de)

Reinigungsanlage der Verbrennungsgase eines internen Verbrennungsmotors.

Title (fr)

Système de purification du gaz d'échappement d'un moteur à combustion interne.

Publication

**EP 0441401 B1 19950503 (EN)**

Application

**EP 91101802 A 19910208**

Priority

- JP 1156390 U 19900209
- JP 1682691 A 19910118

Abstract (en)

[origin: EP0441401A1] An exhaust gas purification system for an internal combustion engine includes an engine (1) capable of fuel combustion at lean air-fuel ratios, a lean NOx catalyst (3) installed in an exhaust conduit (16) of the engine, an HC producing means (2, 4, 6, 11, 15, 21, 22, 23, 24, 25, 26, 30, 32) for producing hydrocarbons of low boiling points utilizing fuel for the engine, and an HC supply means (7, 8, 9, 10, 13, 27, 28, 29) for supplying the hydrocarbons of low boiling points to the exhaust conduit (16) upstream of the lean NOx catalyst (3). NOx reduction reaction needs hydrocarbons of low boiling points. The HC producing means produces hydrocarbons of low boiling points from diesel oil by cracking, fractional distillation, or both cracking and fractional distillation. The cracked and/or distilled fuel includes a large amount of hydrocarbons of low boiling points and increases NOx purification rate of the lean NOx catalyst (3) when the hydrocarbons of low boiling points are introduced into the exhaust conduit (3) by the HC supply means. <IMAGE>

IPC 1-7

**F01N 3/20**

IPC 8 full level

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Cited by

EP0743429A3; US5921076A; EP0582743A1; EP0708230A1; FR2799201A1; FR2755624A1; EP0490550A3; GB2295561A; KR100742148B1; CN100396906C; EP0869273A3; FR2678176A1; US5645804A; FR2921686A1; EP0783918A1; DE19806265C5; CN104428503A; EP0498598A1; US5201802A; EP0503882A1; US5209061A; US7788905B2; US6539708B1; WO0076637A1; WO2005003546A1; US9222388B2; US9695722B2; WO9941492A3; WO2013191904A1

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